if the result of amputation, as above mentioned—might seem to favour the idea of a mechanical cause *in utero* arresting, or an affection *in utero* actually destroying, parts already formed, and so rendering further growth impossible. It might be assumed, too, that the feet owe their cleft appearance to arrest caused by folds of fœtal membrane, though it is difficult to see how. No imaginable fold of membrane causing arrest could account for the absence of the third metatarsal in the father's left foot. "Maternal impression" may be dismissed with the mere mention. On the whole, in these cases all that seems left for us is to assume that the initial force required to carry the embryo to its full and perfect development was deficient in the particulars of hand and feet.

Passing now to the consideration of the webs: Mr. Bland Sutton, in his comprehensive work on *Evolution and Disease*, discusses webbing of fingers and toes under the head of Spurious Atavism, and is led (page 146) "to regard the abnormal union of fingers and toes by skin folds as a sport or spontaneous variation, and not atavistic." In the cases here photographed the son has inherited the defective development—as far as fingers and toes are concerned—of hands and feet from the father. The most specialised side of the hand—the thumb side—is the side involved most in the two cases. In the father the little fingers of both hands are free and complete, while the other fingers are more or less imperfectly represented, advancing in imperfection towards the thumb or its representative. In the son only the little and ring fingers in each hand are represented at all, and they now are webbed together. Is the web, then, to be looked upon as an abnormality by defect—defect in the specific stimulus called into action at the moment of conception to carry the germ to full and perfect development of form and function? or is it another "sport" that the ring and little fingers, free in the father, are now joined together by skin folds in the son, an indefinite tendency to "sport" being inherited? or are we to regard only the web itself—neglecting the form and functional condition of the fingers—and class the condition among congenital hypertrophies—excessive growth of the individual part, the web? Certainly in the two cases before us I agree that the condition is not to be classed amongst atavistic phenomena. I prefer to consider the fingers and web together, and look upon the whole as monstrosity by defect. Mr. Bland Sutton, in *Evolution and Disease*, pp. 102, 106, 134, and 158, clearly shows that supernumerary digits in man—or in any pentadactyl mammal—can never be correctly classed amongst atavistic phenomena, but invariably arise by dichotomy.

The present case, though not so simple and uncomplicated as many already recorded, still carries with it traces of its mode of origin. It was anticipating this relation that I referred to the groove running anteriorly and posteriorly along the tip of the ring finger of the left hand as "interesting" in relation to the question of dichotomy.

With regard to the feet little more need be added. The parts suppressed have already been mentioned, and attention has been drawn to the father's left foot in referring to defect by arrest. As in the hands so in the feet, the tendency to defect is intensified in transmission to the son and symmetry is maintained.

A GROUP OF CASES OF TUBERCLES IN THE CHOROID PRESENTING SOME UNUSUAL FEATURES.[1]

By CHARLES A. MORTON, F.R.C.S.,
Registrar Bristol General Hospital and Pathologist to the Bristol Children's Hospital.

The following cases seem to possess some points of special interest.

Case I.—This was a child, aged 2 years, suffering from multiple tuberculous growths in brain, with basal meningitis and general tuberculosis. The points of interest in this case on ophthalmoscopic examination were (1) the large ring of dark pigment, (2) the paper-white centre, (3) the large size of the tubercle, slightly larger than the disc (Fig. 1). The tubercle was in the outer part of the fundus away from the disc. *Post mortem*, instead of the retina floating off the choroid, as it usually does, it was found to be adherent to the tubercle. I have never met with any other case

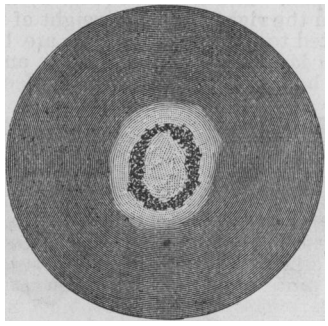


Fig. 1.

of choroidal tubercles examined *post mortem* where the tubercles did not form a tuberculous mass in the choroid. Why this was so is explained on microscopic section, for

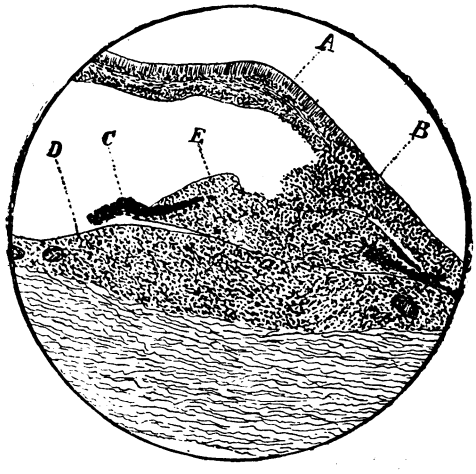


Fig. 2. *A*, normal retina. *D*, tubercle in choroid, with giant cells. *E*, tuberculous mass growing out of choroid. *B*, retina infiltrated with tuberculous cell growths. *C*, retinal pigment.

the retina is seen to be infiltrated by the tuberculous growth beneath, which has burst through the choroid, and is thus tied down (see Fig. 2). The tubercle has several giant

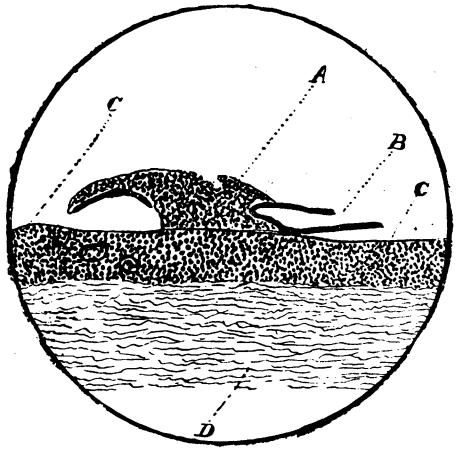


Fig. 3.—*A*, Tuberculous mass which has ploughed through and turned back the retinal pigment. The cells are drawn too large so as to make the reproduction of the drawing easier. *B*, retinal pigment. *C*, tubercle in choroid. *D*, sclerotic.

[1] Read before the Bristol Medico-Chirurgical Society.

cells, and two or three bacilli are to be seen in six sections examined. The microscopic examination of the tubercle seems to explain the ring or dark pigment. The appearance of some of the sections (see Fig. 3) suggests that the tubercle in its growth has ploughed through the layer of retinal pigment, and, still increasing, has bent it back on itself at the edge, thus forming the dark ring. It is difficult otherwise to explain the formation of this ring on the surface of the tubercle. This tubercle was the only one found on examination of both eyes after death.

CASE II.—This was a child, aged 5, suffering from general tuberculosis, with tuberculous meningitis, and a tuberculous

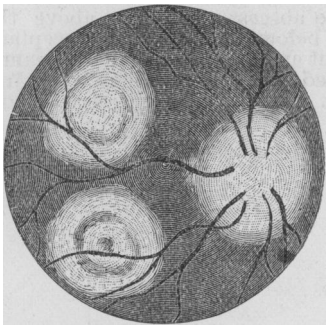


Fig. 4.—Left eye. Position, as seen by direct examination.

nodule in the cortex. The two tubercles (Fig. 4), the only ones found *post mortem*, are of interest owing to their large size. They are drawn relatively to the size of the disc, Their pigmented condition is also of interest,[2] since the statement is made in a popular textbook on diseases of the eye that choroidal tubercles are "unaccompanied by pigmentary or other choroidal changes."

CASE III was a child with tuberculous meningitis. Here, also, the tubercle is distinctly pigmented. The drawing (not reproduced) shows several large dots of pigment on the centre of the tubercle.

CASE IV.—A child, aged 8, is of interest because of the presence of patches exactly resembling choroidal atrophy. I examined the child's eyes with the ophthalmoscope as she was suffering from a persistent hectic which suggested general tuberculosis. In the periphery of the fundus were two patches exactly resembling spots of atrophy after choroiditis. One spot I have described in my notes as "the typical ring of choroidal pigment associated with atrophy"; and the other as "a small well-defined, irregular white patch of choroidal atrophy without pigmentation." I did not see her again, and she died ten days after my examination from tuberculous meningitis.

Post mortem I found the two patches seen during life, one with the pigment ring, the other without, and they were not raised. But in another part of the fundus I found a tubercle without pigmentation, distinctly raised to such an extent as to be recognised with the naked eye. Looking at the fact that there was one undoubted tubercle, I think there is little doubt the other spots were patches of atrophy and pigmentary disturbance left by absorbed tubercles, if not by tubercles which were not elevated enough to be recognised as such. Wishing to preserve the fundus as a glycerine jelly specimen, no sections were made. This case is of much interest, as, like the first one, it shows how tubercle may produce a patch indistinguishable from choroidal atrophy after choroiditis. In cases of disseminated choroiditis I have seen spots which taken by themselves apart from the others could not be distinguished from these unusual forms of tubercle or atrophy after its absorption. Dr. Carpenter, in the BRITISH MEDICAL JOURNAL of July 11th, 1891, figures some tubercles which have very marked rings of pigment.

CASE V.—A child, aged 10, died of general tuberculosis. There were twenty-five tubercles in one fundus, and seventeen in the other.

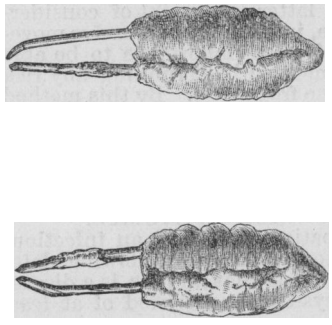
[2] Although no microscopic examination was made, the spots were so distinctly raised *post mortem* there could be no doubt as to their nature.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

VESICAL CALCULUS WITH A HAIRPIN AS A NUCLEUS.

THE communication in the BRITISH MEDICAL JOURNAL, of May 14th, from Mr. Stamford, of Tunbridge Wells, reminds me of a case which came under my care in 1884. The patient, a girl, aged 19 years, was first seen by my assistant, who naturally enough attributed the symptoms to uterine disorder, till I suggested an examination of the bladder, where he felt the sound impinge against a metallic substance. A conjoint examination discovered a calculus, and the antecedent history of the case (like that of Mr. Stamford's patient) suggested a hairpin nucleus. Removal without cutting was the next question to be settled. Accordingly, having put the girl thoroughly under the influence of chloroform, I dilated the urethra well with my finger, and seized the projecting points of the hairpin with a pair of strong forceps, but was now met with a difficulty. In trying to extract the calculus antero-posteriorly or laterally, I found I was prevented by the pubic arch, but by twisting it into the oblique position I gradually insinuated it out without requiring to incise the urethra. The calculus measured 1¾ inch by 1 inch, and weighed half an ounce. The accompanying woodcut represents the calculus I have described.



Such calculi are doubtless met with not very rarely, but each case published adds an iota to our knowledge.

Willesden Green, N.W. P. MURRAY BRAIDWOOD, M.D.

SEPARATION OF THE OLECRANON FROM THE ULNA.

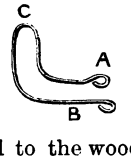
CONSIDERING the very unsatisfactory results following treatment of separation of the olecranon from the shaft of the ulna by fracture, in those instances in which the separation has been considerable, by the ordinary method of applying pressure to keep the fragment in apposition by means of a nearly straight splint and bandages only, I suggest the following:

1. A piece of wood for the forearm, having a crosspiece on one end for the hand, after the manner of a Carr's splint for fractured radius.

2. An angular piece for the front of the elbow, having a joint at the elbow capable of being loosened and fastened by a screw, so as to allow of passive movement when considered requisite; this piece to have a pair of sliding cuts in its distal end to allow of being fastened by a pair of screws to 1, so as to allow of being adapted to arms of different lengths.

3. A stout straight silvered steel wire with triangular point, to be driven through between the triceps tendon and the olecranon close to the insertion of that tendon. The wire to be ¾-inch protruding on each side.

4. A loop of stout wire, fastened to piece 1 at the level of the wrist, so that the loop C would be behind the forearm



and the eyes A fastened to the wood, on which it would be movable, whereas the point B would rest against a pin driven into the wood in front of it, so as to prevent the loop C from pressing unduly against the back of the forearm. Of course, this loop would be capable of being manipulated to suit circumstances.